Data Backup 3.1
User Guide

I. Introduction

Thank you for purchasing Data Backup, the easiest to use, full featured back up utility on the Mac OS platform. This manual will help you get started, regardless of the level of experience you have using your computer. If you are an old pro, you can probably just start using Data Backup without reading the manual at all. If you are an intermediate computer user, you may want to start by reading the "Quick Start" section of the manual to get your first backup accomplished right away, then you can refer to the "Using Data Backup" section of the manual at your leisure to explore some of Data Backup's more advanced features. If you are new to computers and back-ups, please continue reading from this point to get a little background information before you proceed.

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Why backup?	Think of your computer as a tool, and your data as the product that you make with the tool. You make documents, download files, install applications and keep your system up to date – all of these activities add and change the data on your computer and many of them represent a significant amount of your own time that you invested. The data on your computer is stored on a hard drive that is made up of many mechanical moving parts. These parts, given enough time, are certain to fail – and when it does, it may leave your data inaccessible. The only protection you can provide for yourself is to make additional copies of your data and store them in a safe place.
What is a backup utility?	A backup utility is an application that makes it easier for you to copy a large amount of files conveniently and easily and to find and restore those files when you need to. A backup utility should be the most important application on your computer because it protects all the data that your acquire and create. Data Backup is the easiest to use, full-featured backup utility available on the Mac platform.
Philosophy	Data Backup was designed and built for ease of use and to be a powerful and reliable way to protect yourself from losing valuable data. With Data Backup, you can make a partial or complete backup with just a few easy mouse clicks and repeat that backup process automatically at any time of your choosing. Data Backup safely copies your files between hard drives and folders within hard drives. Because Data Backup does not copy to tape drives, your data will be copied in finder-readable format and can be easily accessed in the future.

II. Quick Start
Your first backup

Remember, in order to perform a backup on your computer, you must have a drive or CD/DVD media available that will accommodate all the data you are planning to copy. For instance, if you are planning to perform a complete backup of your internal drive (this is your first recommended backup), you must have in your possession, an external drive of adequate free space to contain all of the data on your internal drive. If you do not have a suitable backup drive, you can obtain one from most computer retailers – FireWire or USB 2.0 drives are best for speed, but you may also use a USB 1.0 drive – check the capabilities of your computer before purchasing a drive so that you are sure your computer and your new drive are compatible with one-another (if you are interested in creating bootable backups of your computer, please see the notes about the Clone backup type in the "Selecting the Backup Type" section starting on page 15). Now, with your external drive attached, read on and get started with your first backup.
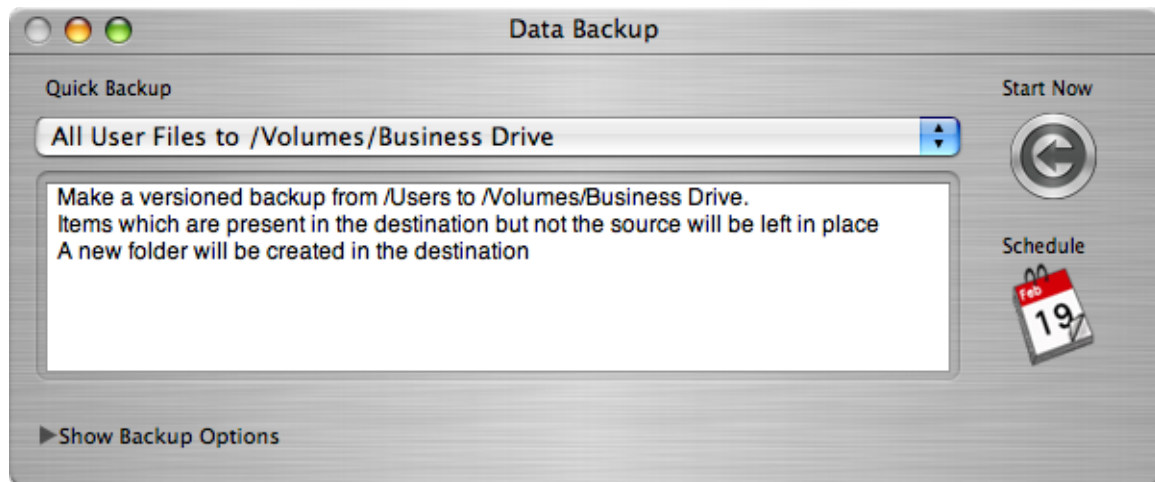
Backing up your computer is as easy as one, two, three…

1) Install and start Data Backup.

Installing Data Backup

Data Backup must first be installed on your computer before it can be used. When you purchased Data Backup, you received a CD containing an installer application, or the installer application may have been downloaded to your computer (if you purchased the

product on the Internet). In either case, find the installer application and double click on it.

The install process just takes a few seconds and Data Backup will be completely installed and the Data Backup application will reside in your Application folder. Double click on the Data Backup application and its startup screen will be displayed.

Registering Data Backup

If you purchased Data Backup from the Internet, you would have been emailed the registration code. If you purchased Data Backup from a retail store, and you are in possession of the original CD, the bright yellow card in the CD case will contain the serial number. When you first start Data Backup, you will be asked for a registration code. Type the code into the boxes provided, and click the OK button.

Logging in as admin

The first time you run Data Backup you will be required to enter an administrator password. This precaution is for your own protection. Since Data Backup has access to all files on your hard drive, the login information is required to verify that you have legitimate access to your computer's data before allowing you to copy the data. After the first run you won't be required to enter your password again. If you want to require a password to be entered on every run, please turn off the "Retain Authentication" preference (see Preferences section).

2) Select a Default Destination drive/folder

When you first run Data Backup it will look for an external drive (FireWire or USB) to set as your default destination. If you have more than one external drive or if your drive is partitioned, it will pick the drive or partition with the largest amount of free space. If you do not have an external drive, you will be asked to specify a default destination.

You can change your default destination at any time by selecting the Set Default Destination item from the File menu.

3) Select a Quick Backup type.
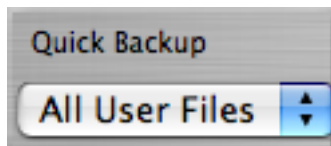
Next, you need to select the type of backup you wish to perform. You can do this by selecting the backup type from the "Quick Backup" popup menu near the top of the window. You can select from a few options including:

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Entire Internal Drive	A complete backup of all the data on the internal drive of your computer, including the system, all applications and documents. By Default, your computer's data will be copied to the root of your default destination.
All Non-System Files	A backup of all the data on the computer except for the system files. This backup type is identical to "Entire Internal Drive" above, but all system files are skipped.
All User Files	A backup of all the documents on the computer created by all users of the computer. By Default, the data in your computer's /Users folder will be copied to the root of your default destination.
All Files for "*Name*"	A backup of all the data in your home directory (the person currently logged into the computer), including preferences and documents. By Default, the data in your computer's /Users/Name folder will be copied to the root of your default destination.
All Document Files for "*Name*"	A backup of all the documents in your home directory. This backup type is identical to "All Files for *Name*" above, except that all non-document files are skipped.
All Document Files for "*Name*" to CD/DVD	A backup of all the documents in your home directory to CD or DVD.
iPhoto and other Pictures for "*Name*" to CD/DVD	A backup of all the files in your Pictures directory to CD or DVD.

If you have not selected a default destination only the backups to CD/DVD will appear in Data Backup.

By selecting a Quick Backup type, you are specifying which files to backup and where the copied files will be placed. Data Backup automates this process to help

you get up and running fast. Refer to Data Backup's information panel to review what will happen in the Quick Backup that you have chosen.

4) Start the Backup process.
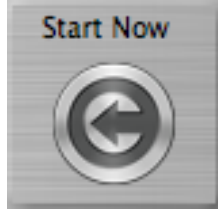
Finally, you need to start your backup process. You do this by clicking the "Start Now" button near the top of the Data Backup window. The backup process is now under way. You will see some activity near the bottom of the window as the files are being copied to their destination. The actual time the backup will take depends on several factors including how many files you are copying, and how fast your computer and hard drive are. The backup will complete even if you quit the Data Backup application.

If you are copying to a CD or DVD Data Backup will prompt you to load writable CD or DVD media. Data Backup can backup to either type of media and can mix CD and DVDs in the same backup operation.

Now that your first backup is complete, verify that the files you expect to see in your destination drive/folder are present, then you should place the destination drive in a safe place, away from your computer – that way, if your computer gets lost, stolen, or damaged, you will still have possession of a good copy of your important data.

In order to learn more about using Data Backup, including Scheduled actions and restoring your data in case of emergency, please refer to the "Using Data Backup" section of the manual.

III. Using Data Backup

After your first backup

If you have an external drive, it is recommended that you backup your entire hard drive to by using the "Entire Internal Drive" Quick Backup option as described in the Quick Start section of this manual before proceeding with more complex backup concepts introduced in this section of the manual.

If you do not have an external drive, using the "All Document Files for "Name" to CD/DVD" is recommended as your first backup. You will need to have a number of recordable CD's or DVD's available. To quickly determine the number of CD's or DVD's that you will need, use the Finder's File->Get Info (Command-I) on your home directory and divide that by 600 MB to get the number of recordable CD's needed or by 4GB to get the number of recordable DVD's required.

Backing up your data using Quick Backup types

In Data Backup, you can choose from a number of predefined backup operations, known as Quick Backup types, or you can define your own custom backup operation and save its settings as your very own Quick Backup type for later use. All Quick Backup types are accessible by clicking on the Quick Backup popup menu near the top of the Data Backup window. Every backup type, whether predefined or custom, can be started manually or scheduled to occur at any time of your choosing (See "Scheduling your backup for later").

In order to simplify the user interaction in Data Backup, only Quick Backup types that are valid will appear in the Quick Backup popup menu. For example, the "Entire Internal Drive" backup type will not appear if you have not selected a default destination.

Selecting Predefined Quick Backup types

There are several Quick Backup types predefined in Data Backup, they represent the most common types of backups and are designed in to help you get up and running fast with the minimum amount of interaction. Please refer to the Quick Start section of this manual for a description of each Predefined Quick Backup type.

To use a Quick Backup's default behavior, you simply select it from the popup menu and click Start Now as stated in Quick Start above. However, if you wish to customize the actions performed by any Quick Backup type, you may do so by selecting it from the

popup menu, then click "Show Backup Options" near the bottom of the Data Backup window. This will reveal a backup options panel that shows the details of your chosen backup type. As shown here:
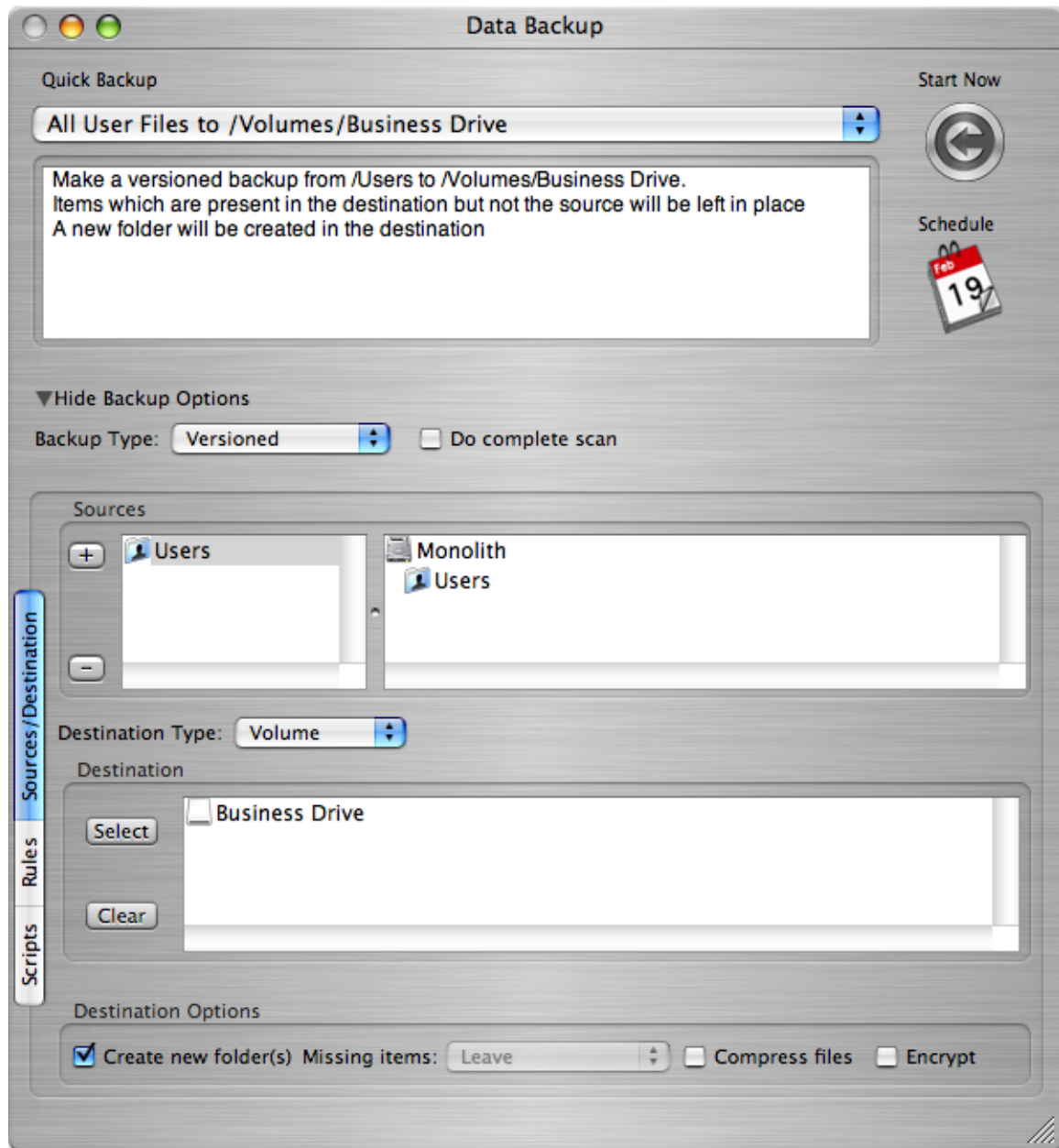
From this revealed panel, you may now change your backup parameters, including the destination drive, or even specify certain types of files that should not be considered for backup. Essentially, you are creating a custom variant of one of Data Backup's default

Quick backup types. For more information on what parameters you can customize in this way, please refer to "Creating custom Quick Backup types" below.

Once you begin to customize a predefined Quick Backup type, it becomes a custom type and you may save a copy with a name of your choosing with the "Save Backup Set As" File Menu option or modify the set by using the File Manu "Save Backup Set" option (Command + S). If you want to restore the original predefined type, use the File Menu "Add Predefined Set" option.

Once you have selected and/or customized a predefined backup type, you may choose to initiate the backup now, or schedule it to be performed later. In order to complete the backup now, simply click the Start Now button near the top of the Data Backup window. Once started the backup process will run unattended, in fact you may even quit the Data Backup application and your backup will be completed normally.

Do not disconnect your backup drive while a backup operation (or any other access operation) is in progress, you may damage the data on your drive. For best results, eject the drive before disconnecting it. If a backup operation is in progress while you attempt to eject the drive, the eject request will be denied and you must try again later.

Creating custom Quick Backup types

If none of Data Backup's predefined Quick Backup types fit your needs or if you have additional backup requirements, you may define a Quick Backup type of your own with just a few mouse clicks. To get started, select the "New Backup Set" option from the File menu or press Command+N. This will cause the backup options panel to be displayed (as shown below) and you can start building your Quick Backup type by defining your backup options such as source drive, destination drive, backup method, scripts to execute and files to include or exclude in the backup process. These options are set as follows.
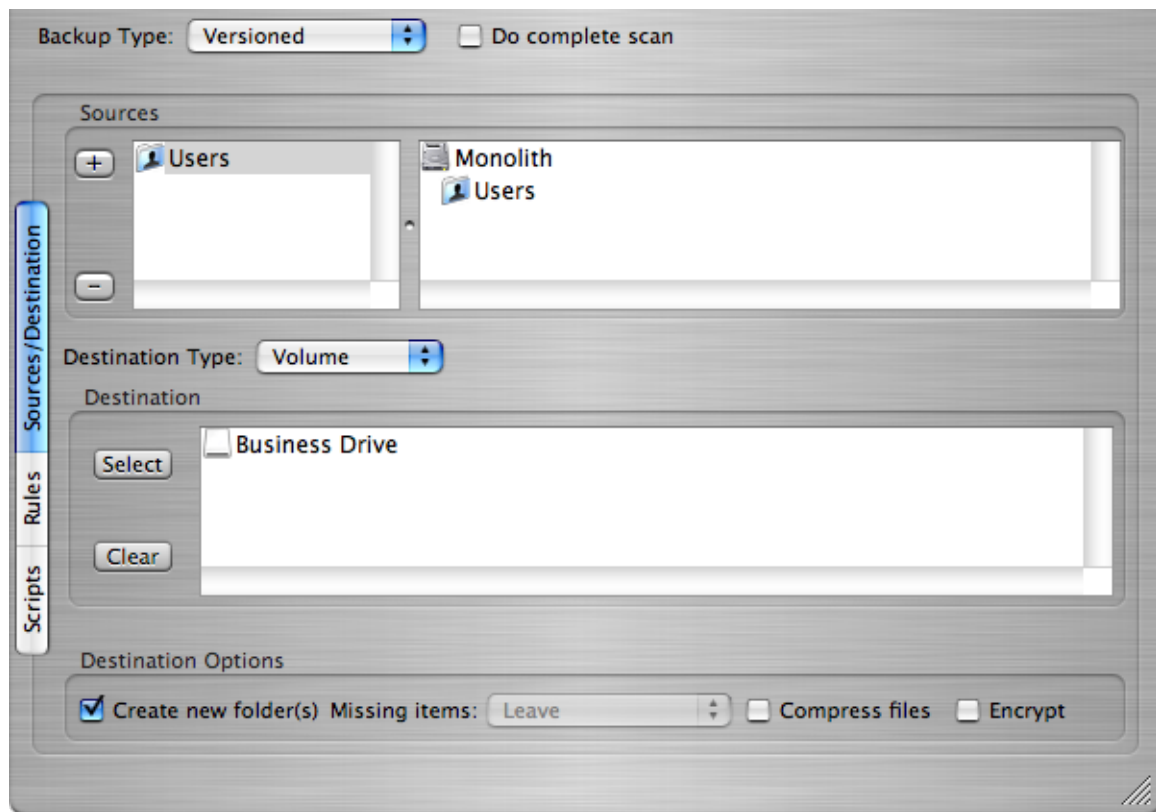
Selecting the Source Drive and/or files for your Backup

Near the top of the backup Options panel, you will find the source drive selection well. You can drag Drives, folders, and files into this area to define the items that you want to back up.
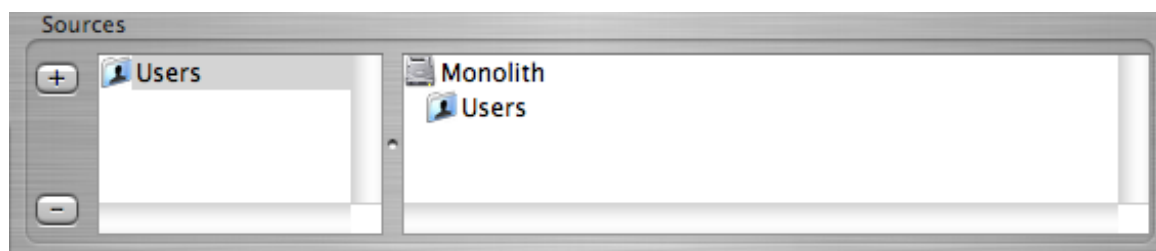
The left third of the well indicates the items that will be backed up. If one of the items to be backed up is selected (by clicking on it) then the right two thirds of the well will indicate its path from the root of your drive.

The plus and minus buttons near the left side of the well can also be used to define which items will be backed up. Clicking on the plus button will allow you to use a standard file selection window to define a file, folder or volume to be backed up. You can remove any of the items in the source drive selection well (by clicking on it), then clicking the minus button.

Any drive or folder in the source drive selection well indicates that it and all of its contents (including all enclosed folders) are selected for backup.

By specifying multiple source drives, folders, and files in the source drive selection well, either by dragging or by using the plus button, you can specify several items to back up. For instance, you can specify both your user folder and your applications folder in order to cause the contents of both your user folder and your applications folder to be backed up.

Selecting the destination type

Data Backup supports backing your files up to both volumes, such as an external or network drive, and CD or DVD media.
Backing up to an external drive is the fastest, cheapest and most convenient way of backing up your data. However, an external drive has the same disadvantages that your internal drive does: it is easily erased and it is vulnerable to being dropped, electrical power surges and mechanical failure.
Recordable CD's or DVD's provide a permanent record of your data that is more robust physically and is also easy to leave in a safe location other than where your computer is stored. Storing your critical data in a so-called "offsite location" protects your data against catastrophes that might strike your home or place of business such as fire, flood or earthquake.
Unfortunately CD's and DVD's hold a very small amount of data (approximately 700MB and 4GB respectively) compared to the size of the average hard disk so it is usually not practical to back up your entire computer to CD's or DVD's (60GB of data translates into about 100 CD's or 15 DVD's) and they are quite slow compared to hard drives. It's usually best to use CD's or DVD's for your important data such as pictures, movies, documents or your iTunes library which you absolutely cannot afford to lose. Make extra of your important files on CD or DVD's and store them at an "offsite location", somewhere other than where your computer is kept, to get extra insurance against catastrophe.
Use an external drive to keep a complete backup of your system as a Clone or Versioned backup so that you can get right back to where you were in the event of a hard disk crash.

Selecting the Destination Drive or folder for your Backup

You specify the destination of your backup operation similarly to specifying your source backup drive, however you may only define a single destination location (you cannot make multiple copies of your backup within a single backup operation).
To use a folder or drive for your backup, first select the "Sources/Destination" tab on the left side of the main panel and then set the "Destination Type" popup to "Volume".
Near the bottom of the Backup Options panel, you will find the Destination drive selection well. You can drag Drives or folders into this area to define the location you wish your data to be backed up to.
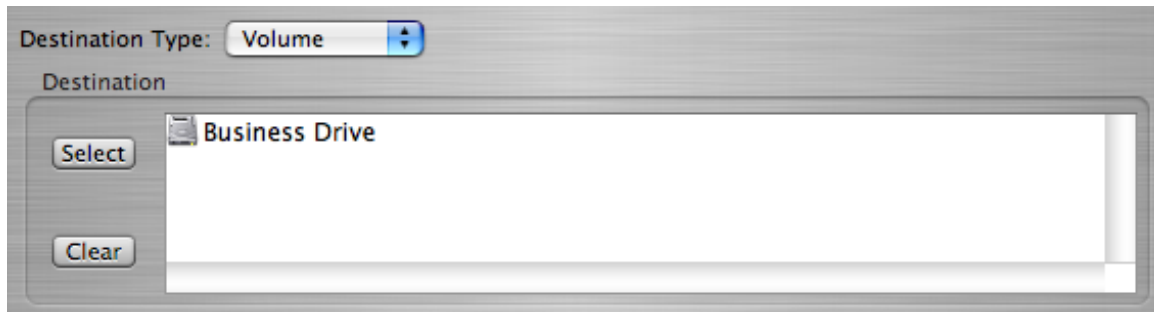
The right side of the well will indicate this location's path from the root of its drive.

The select and clear buttons near the left side of the well can also be used to define which items will be backed up. Clicking on the select button will allow you to use a standard file selection window to define a folder or volume to be backed up to. You can remove the backup location by clicking the Clear button.

Selecting CD or DVD media for your backup

To us a CD or DVD for your backup, first select the "Sources/Destination" tab on the left side of the main panel and then set the "Destination Type" popup to "CD/DVD"

There are several options that can be set when backing up to CD or DVD.

Multiple sessions per CD
Data Backup allows you to create multiple sessions on a single CD (this release does not support multiple sessions on DVD media). This is useful when trying to do backups of small amounts of data.
You should not use this option when making critical backups. If a later session has difficulties burning it can make the entire CD unmountable and render the previous sessions on the CD inaccessible.

Split large files
Data Backup can split files that are larger than a single CD or DVD across multiple discs. If this option is turned off and Data Backup tries to backup a file which cannot fit on a single CD or DVD (depending on which media you have loaded) it will skip the file and not back it up.
In general you should use this option unless you are making copies of files to take to a system which does not have Data Backup installed.

# of copies
Data Backup can make multiple copies of each CD or DVD as it backing up. Set the number of copies to make here.
You might want to make multiple copies to keep one copy with your machine and take another copy to an "off-site" location for added protection against disasters or to protect against media going bad. The different copies are interchangeable and can be mixed together in any fashion during a restore.

Use media in drive
When Data Backup backs up to CD or DVD media it usually displays a dialog to select the CD or DVD drive to burn to. If this option is set, Data Backup will look for blank or appendable media in the drives attached to the machine and select the most appropriate one to backup to. If you have multiple drives with recordable media attached Data Backup will use each of the drives in turn as it needs additional media for the backup. If Data Backup cannot find any media in the drives it will display the drive selection dialog if possible.
This option is most useful when making a backup set that will be scheduled to run unattended.

Specifying files to skip

One of the most powerful features of a quality backup application is the ability to easily specify all of the files that you want backed up. One of the most important aspects of this is the ability to specify a set of files that are to NOT be backed up in any circumstance. For example, if you want to backup your entire hard drive except for things you can easily re-install (like applications), you would specify your whole hard drive to be backed up but ignore all applications. Data Backup gives you the ability to do this by allowing you to specify files to include and exclude during the backup process.
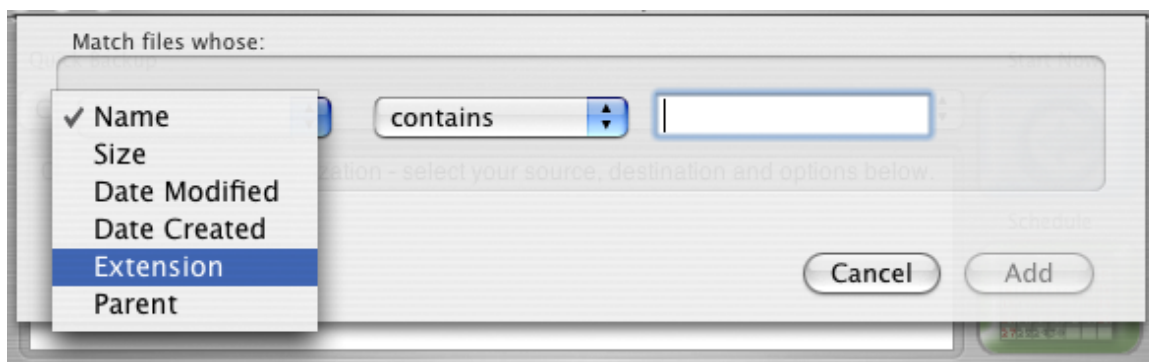
You can choose to include or exclude files based on several different parameters, or a combination of parameters. Select the "Rules" tab on the left hand side of the main screen to display the include and exclude rules for the backup.
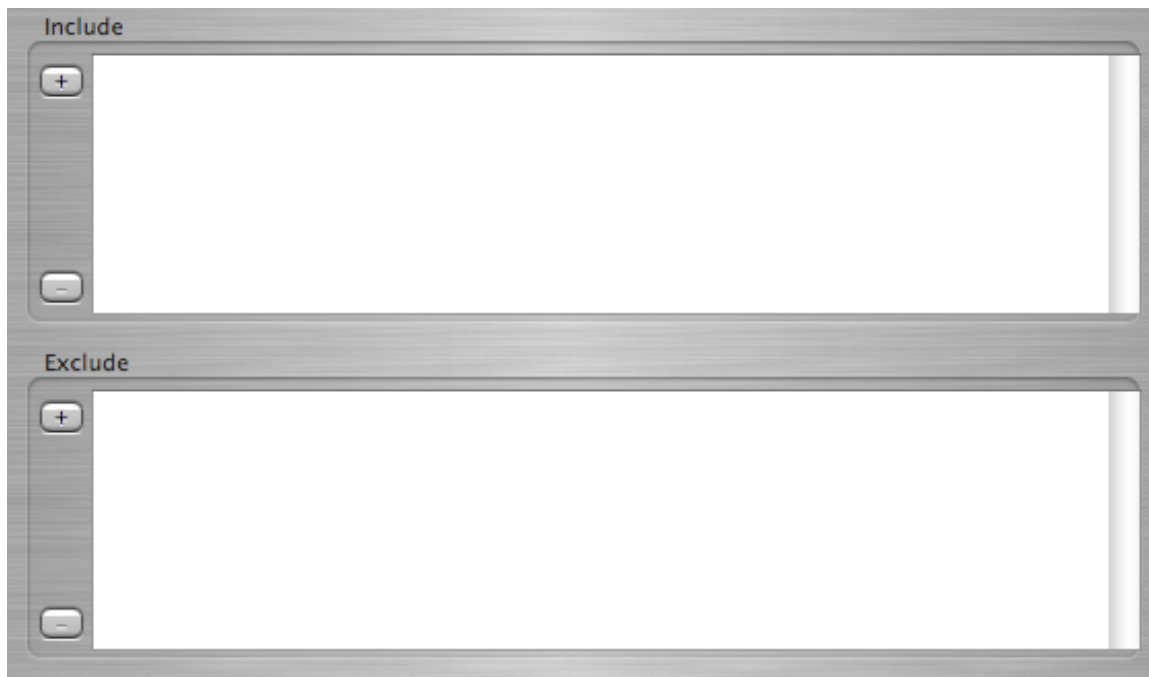
In order to be included in a backup a file or directory must match any include rules and not match any exclude rules. If no include rules are specified this is the same as having an include rule for "everything".

If, for example, you wanted to back up all of your JPEG files but not those files in your browser cache, you could create an include rule for files with a .jpg extension and exclude file for files that have a parent directory of /Users/<your user name> /Library/Caches/Safari.

To add an include or exclude rule, you must click on the plus button near the left of the well for the type of rule (include or exclude) that you want to ad. Upon clicking the plus, you will be presented with a preference panel that allows you to specify the rules that describe the files you wish to ignore. In this panel, you can specify files based on several criteria as defined below.

Name   The name of the file. In this selection mode, you can specify a
                 number of criteria including "contains", "starts with", "ends with",
                 and "is". You type in your parameters in the editable test item to
                 conclude your criteria as in "All files whose name ends in txt" –
                 this would select all text files for exclusion.

Size   The size of the file. In this selection mode, you can specify a
                 number of criteria including "is less than", "is greater than", and
                 "is equal to". You type in your size parameter (number of
                 kilobytes) into the editable test item to conclude your criteria as in
                 "All files whose size is less than 300 kilobytes" – this would select
                 all files less than 300 kilobytes.

Date Modified   The modification date of the file. In this selection mode, you can
                 specify a number of criteria including "is today", "is within", "is
                 before", "is after" and "is exactly". You set your desired date or
                 date range in the control provided to conclude your criteria as in
                 "All files whose modification date is exactly Feb 29th, 2004" – this
                 would select all files modified on Feb 29th, 2004.

Date Created   The creation date of the file. In this selection mode, you can
                 specify a number of criteria including "is today", "is within", "is
                 before", "is after" and "is exactly". You set your desired date or
                 date range in the control provided to conclude your criteria as in
                 "All files whose creation date is exactly Feb 29th, 2004" – this
                 would select all files created on Feb 29th, 2004.

Extension   The extension of the file. In this selection mode, you can specify
                 "is today", and "is not". You set the desired file extension by
                 typing it into the editable text area of the panel as in "All files
                 whose extension is .app" – this would select all files that have
                 ".app" affixed to the end of their file name.

Parent Folder   All files within the specified folder. In this selection mode, you can
                 specify "is" and "is not". You set the folder by dragging it into the
                 provided well, or by pressing the select button and using a standard
                 file selection window. With this selection mode, you can set rules
                 like: "All files whose parent folder is /System".

Selecting the Backup Type

Backup Type: Versioned
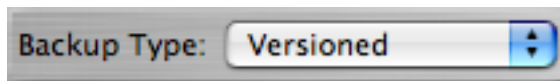
The Backup Type defines how the files that are to be backed up will be organized in the destination drive/folder. There different types of organizational layouts depending on what you are trying to accomplish with your backup and how much flexibility you want during a restore operation. Data Backup supports six different Backup Types. Their descriptions, warnings and suggested usages are presented below.

Simple Copy   The source drives/folders will be copied into the destination drive/folder. All the selected data is copied along with some hidden information that helps Data Backup manage additional backup processes in the future. In subsequent Simple Copy backups, only the changed files will be copied and files that are no longer present in the source drives/folders will be deleted in the destination drive/folder (this greatly increases the speed of your subsequent backup operations). The files backed up can be compressed or password protected while being copied to the destination drive/folder (see "Additional Backup Options" below for more information).

Use this backup method if you need a simple copy of one or many files or folders and do not care to keep older versions of your files.

Clone   Make an exact copy. This process does not add any hidden information and the resulting data will be in the form of a bootable drive if the source is bootable. You may not select the "compress" or "password protect" option for this type of backup. After the clone backup is completed, the destination drive/folder will contain all of the files in the source drives/folders, with permissions and dates set identically.

This backup type is most commonly used when you are trying to make a complete copy of your bootable internal volume. You can use the resultant clone as a future replacement drive for your computer, or install the clone drive into an identical computer in order to establish identical configurations for multiple computers (such as in a school lab environment).

By default, any preexisting files and folders in the destination drive/folder will be removed during this backup process - i.e. when the backup is complete, only files that appear in the source drives/folders will be present in the destination drive/folder.

Mac OS X can only be booted from a volume, not a partition. When you are making a bootable volume with the Clone backup type you must select the volume as the destination, not a folder within the volume. In addition, the partition format and attachment type of the volume must be the correct type for booting.

Mac OS X supports 3 different partition formats – GUID Partiton Tabl,e Apple Partition Map and Master Boot Record (aka DOS). PowerPC Macintoshes can only boot from Apple Partition Map formatted drives. Intel Macintoshes can boot from GUID or Apple Partition Map formatted drives, however Apple only officially supports booting from GUID partition formatted drives. Mac OS X will refuse to install from an Intel Macintosh to an Apple Partition Map formatted drive. Macintoshes cannot boot from Master Boot Record formatted drives. Many external drives, especially USB drives, are formatted by the manufacturer with the Master Boot Record format. In order to use a drive that has been formatted this way, you must repartition the drive using Apple's Disk Utility or another utility with equivalent functionality. Changing the partition type will always erase all data from the drive as well so exercise caution.

PowerPC Macintoshes can only boot from FireWire external drives. Intel Macintoshes can boot from FireWire or USB external drives.

Versioned   Versioned backups are similar to simple copy but old and deleted versions of all the backed-up files are stored inside a hidden area within your destination drive/folder. In the first Versioned Backup, all of the files in the source drives/folders will be copied into the destination drive/folder. When subsequent backups are run, old versions of files are stored in hidden locations in destination drive/folder. On restore, files from any backup date can be selected for restoration.

The ability to restore any past version of file (or deleted file) by date makes the versioned backup is the most commonly used backup

method. For best results, the destination drive should be an attached FireWire drive or network drive (as opposed to removable media).

Any preexisting files and folders in the destination drive/folder or files that are not part of the backed up data will be removed during this backup process - i.e. when the backup is complete, only files that appear in the source drives/folders will be visible in the destination drive/folder.
Older versions of backed up data are invisible from the finder and may only be retrieved with Data Backup**'s "Restore" function.**

Synchronize The Synchronize backup method merges the contents of two drives or folders and places the complete set of data into both the source and destination drive/folder.

Synchronize is used most often when a user has two computers and wants to share work on both computers. For example if you have a computer at work, and a computer at home and you sometimes take work home to complete, you might synchronize a folder called "Documents" (which contains all of the files you need to share between home and work) with your computer at work and an external FireWire drive, then bring the drive home and synchronize the new "Documents" folder (from the external drive) to your computer at home (in an additional "Documents" folder. When you are finished working at home, synchronize "Documents" folder your home computer with the external drive once more, then take your external drive back to work. At the beginning and end of each work session (both home and at work), be sure to synchronize – this way, your home computer's "Document" folder and your office's "Document" folder will always stay in sync with each other.

If a file is deleted in either the source or destination folder, the file will be removed from the other drive/folder as well. Similarly, if a file is added to either the source or destination drive/folder, the file will be created on the other drive/folder as well.

Synchronize is a two-way merge. If you want to do a one-way merge, that is to make one folder or volume look like another, use the Clone or Simple Copy backup type.

Advanced backup types

In addition to the backup types listed above, Data Backup also provides traditional Full and Incremental backups that work the way that IT professionals are familiar with. These types are hidden in Data Backup until you turn on the "Enable advanced Full/Incremental backups" on the "Backup" tab of the Data Backup preferences.

When we talk about "Incremental" backups in this manual, we are using the term in the old IT manner. Many people today talk about "incremental" backups where only the files/folder that have been changed are copied from one volume to the other. All of Data Backup's backup types are incremental in that manner. Our Full/Incremental backups are a particular manner of managing the different versions. If the Full/Incremental terminology is not something you are familiar with you probably really want to be using the Versioned backup type.

Full and Incremental backups work together to allow you to backup up the changes made to your data and keep a history of the changes. These backup types are designed to work with removable media. If you are backing up to a hard drive, the Versioned backup will give you better results. For use with CD/DVD media, Full and Incremental backups give you more control over when to perform a full backup of your data. When using Full/Incremental backups be sure to perform Full backups on a regular basis for best protection for your data.

Full   A Full Backup will make a complete copy of all of the files and folders present in the source drives/folders. Upon completion, the destination drive/folder will contain an additional folder named "Full-*Date*", this new folder will contain all of the files and folders that were copied.

The format of "date" in the full folder name is as follows:

YYYYMMDDhhmmss, where
    YYYY = Year (i.e. 2004)
    MM = Month (i.e. 03)
    DD = Day (i.e. 13)
    hh – hours (i.e. 22)
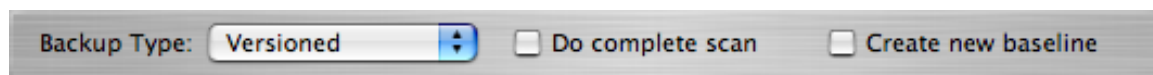   mm = minutes (i.e. 23)
    ss = seconds (i.e. 17)

For example **20040313222317** represents the date March, 13th, 2004 at 10:23:17 pm

NOTE **Unlike "simple", "clone", and "versioned" backups, Full Backup does not overwrite any preexisting files present in the destination drive/folder.**

Incremental The Incremental backup is used with the Full backup to make a copy of the files which have been modified and created since the last Full or Incremental backup to additional folders called "incremental – *date*".

The Full/Incremental backup combo is most appropriate for removable media because it does not require the previous backups to be online to decide which files to copy.

NOTE If you run an Incremental backup without doing a Full backup first, the Incremental backup will copy all of your files. An Incremental backup is not a complete copy of your data! Only the files that have changed or been modified since the last Full or Incremental backup of that volume or folder are copied. Therefore, in order to restore your files you must have the set of backups starting with your first Incremental or the most recent Full backup and then all of the Incremental backups after that Incremental or Full backup your are starting with. For this reason it is recommended that your do Full backups regularly, perhaps weekly or monthly so that the number of Incremental backups you have to restore from is limited.

The format of "date" in the incremental folder name is as follows:

YYYYMMDDhhmmss, where
    YYYY = Year (i.e. 2004)
    MM = Month (i.e. 03)
    DD = Day (i.e. 13)
    hh – hours (i.e. 22)
    mm = minutes (i.e. 23)
    ss = seconds (i.e. 17)

For example **20040313222317** represents the date March, 13th, 2004 at 10:23:17 pm

Unlike "simple", "clone", and "versioned" backups, Incremental Backup does not overwrite any preexisting files present in the destination drive/folder.

Additional backup options

At the top of the backup options section are two special options. These options are for special situations and normally do not need to be used. Both of these options only apply to backups that you run with the "Start Now" button and are not saved when you save the backup set and are not saved when a backup is scheduled.

Do complete scan   This option causes Data Backup to ignore any Fast Start information and do a complete scan of the source(s) to check for changed files. Data Backup monitors the source volume(s) for changes, but does not monitor the destination. If you have made changes to the destination use this option to have Data Backup correct for any changes you may have made. Data Backup automatically does a complete scan on every 10th backup.

Create new baseline   This option only appears for Versioned backups to CD/DVD. Versioned backups to CD/DVD's normally create a new baseline, backing up all files, every 30 backups. If you feel that you need to create a new baseline immediately (for example you may have lost some of your backup discs) use this option. If you want to precisely control when new baselines are created, enable Advanced Full/Incremental backups and run/schedule Full backups as you require.

There are four more backup options available for you when defining a backup process within Data Backup. These options are presented in a panel called "Destination Options". You can select and deselect these options at any time while defining your backup operation.
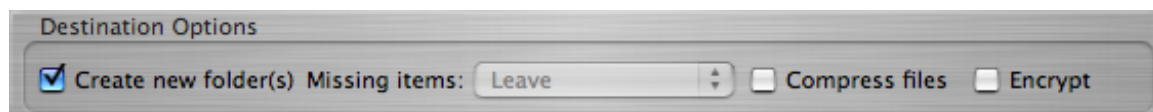
Create New Folder(s)   You may choose this option to create a new folder for each of your source volumes or folders in the destination volume or folder with the same name as the source volume or folder. This option does

not apply to Full or Incremental backups. If you have multiple sources selected it is automatically selected (and cannot be turned off). It cannot be selected for Synchronization. If this option is selected for a Clone backup of a bootable volume, the resulting backup will not be bootable.

Missing Items You may choose one of the methods for handling files and folders that exist in the destination volume or folder that are missing from the source volume or folder (this option applies only to Clone, Simple Copy and Synchronize).

Leave – do nothing, leaving the old files in place.
Delete – remove the file, permanently
Move to trash – put the file in the Trash to be removed later

Compress files You may choose this option to minimize the space required for your backed-up files. When "Compress files" is check marked, all files copied to your destination drive/folder will be compressed with and algorithm called Gzip.

CompressedFile.gz

This standard compression protocol ensures that you will be able to access your backed up data using standard operating system utilities. Even though all files are compressed during the backup process, you will be able to see the files individually using the Finder, and you will be able to double-click on the backed up files which will cause them to be uncompressed automatically. Overall, in general, compressed files will have their sized reduced by approximately 50%.
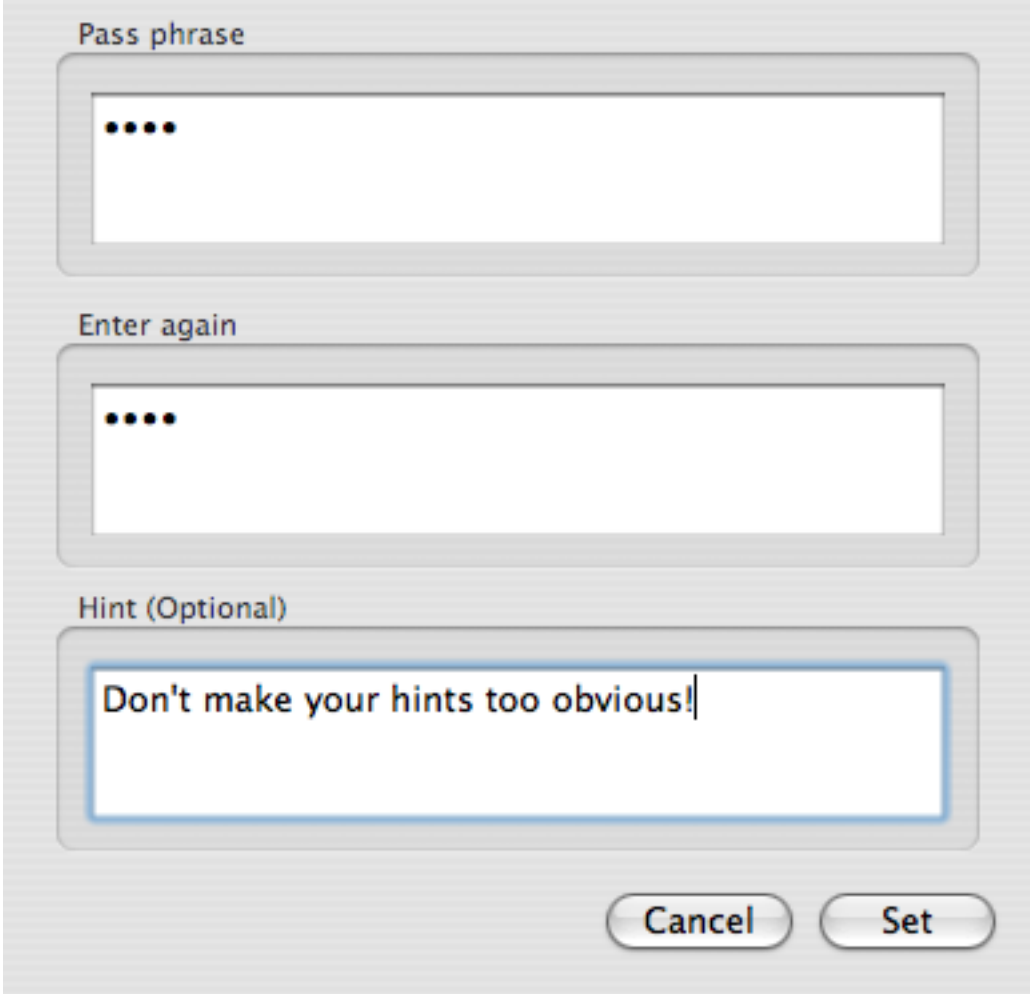
Encrypt You may choose to protect your backup files from unauthorized access by Password Protecting your backup. When "Encrypt" is check marked, all files copied to your destination drive/folder will be encrypted with AES-128 algorithm.

EncryptedFile.gz.enc

This standard is the latest encryption standard approved by the U.S. Government for sensitive documents. Encryption can be used in conjunction with the compression option explained above. When encryption option is selected, when starting or scheduling your backup, you will be asked for a password which can be used during the encryption process. This password will be encrypted with the RSA public/private key standard. You can also

enter a hint which will be shown when you restore from the backup.

Pass phrase

••••

Enter again

••••

Hint (Optional)

Don't make your hints too obvious!

Cancel   Set

Encrypted backups are extremely secure. If you lose your password, you will not be able to access the information in your backup.

Please note that once you select an encryption key, it is stored in encrypted format in the destination drive/folder and will be used for all subsequent backups in this backup set. Because of the secure nature of the encrypted backup, you may not reset this key under any circumstance.

Even though you can see your encrypted files by browsing within the file, you cannot access them unless you restore them from within Data Backup. You will be required to present your password during the restoration process.

Scripts

Data Backup allows you to execute scripts or applications before and after your backup runs. This functionality can be used to check conditions before backing up, exit applications, send email notifications and many other uses.

Select the "Scripts" tab on the left hand side of the main window to view the scripts that will be executed for the backup set you are editing.

This panel allows you to add and delete scripts, change the order in which they will be executed and edit the arguments for the scripts.

When scripts are executed the following environment variables are set:

Name	Description	Set before backup is run	Set after backup is run
OPERATION_SET_NAME	The name of the backup or synchronize set	Y	Y
OPERATION_SET_ID	The internal ID number of the backup set	Y	Y
SUMMARY_LOG_FILE	The path name of the summary log file	Y	Y
VERBOSE_LOG_FILE	The path name of the verbose	Y	Y

	log file (if verbose logging is enabled)		
DESTINATION	The path to the destination volume or folder. This variable will not be set if the destination is a CD or DVD.	Y	Y
SOURCE_N	The path to the nth source file, folder or volume	Y	Y
OPERATION_END_STATUS	The status of the backup or synchronize when it finished. 0 = Finished with no errors 1 = Finished with errors 2 = Failed	N	Y
OPERATION_NUMBER_OF_ERRORS	The number of errors that occurred during the backup	N	Y
OPERATION_FAILURE_REASON	A short description of why the backup failed if the OPERATION_END_STATUS is 2	N	Y

Special note on Automator scripts. If you create an Automator Action using the Automator application available in Mac OS X 10.4 and above you must use "Save As" and select the File Format "Application" to use it as a script with Data Backup.

The backup process

After selecting all of your backup options, you will be ready to start your backup process. When your backup is running, files will be copied from your source drives/folders to your destination drive/folder. The files copied are defined be selecting your backup options as defined above. Data Backup copies your files in the background with a hidden system process; this means that you are free to use your computer while your backup is running. In fact, you may even quit the Data Backup application while the backup is in process. While the backup is in progress, you may hear your drive accessing, or your drive access light blink – this is normal behavior. You may at any time launch Data Backup to check in on the progress of your backup.

Starting your backup

Once you have completed making your backup parameter selections, you can choose to start the backup process immediately by clicking the "Start Now" button. The backup process will begin immediately.
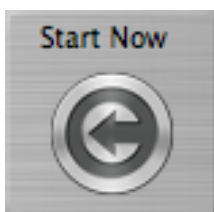
Do not disconnect your backup drive while a backup operation (or any other access operation) is in progress, you may damage the data on your drive. For best results, eject the drive before disconnecting it. If a backup operation is in progress while you attempt to eject the drive, the eject request will be denied and you must try again later.

If you have made any custom parameter selections, a dialog box will appear, asking if you would like to save your backup settings as a custom backup set or run without saving.
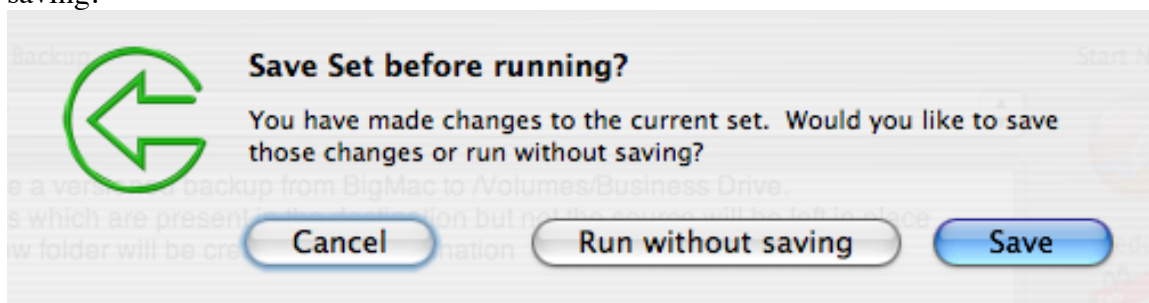
If you choose to save your settings you will see this dialog box:
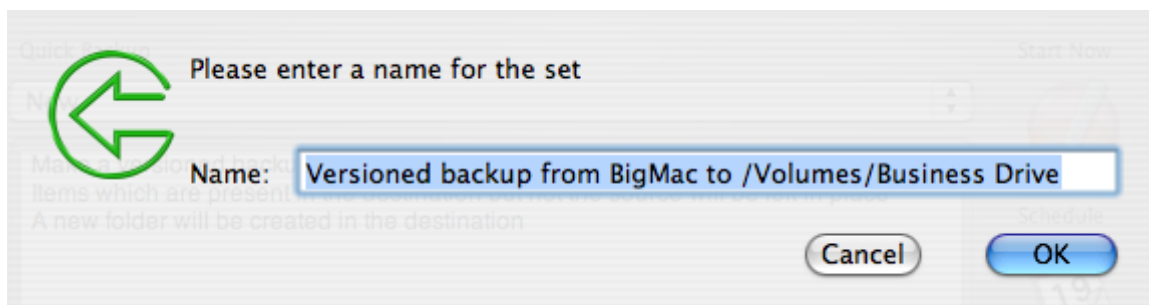
Simply type in a name for your backup set and click OK. From this point on, your custom backup set will be available in the Quick Backup popup menu. By selecting your named backup set from the Quick Backup popup menu and clicking start, you will then be able to perform your custom backup set at any time in the future without reselecting any backup options.

CD/DVD backups

When backing up to CD's or DVD's you will need to do a little preparation before starting your backup. First, have a sufficient supply of CD's or DVD's available to hold the data you wish to backup. CD's will hold about 600 MB and DVD's will hold about 4GB of data. If you are backing up a large number of small files you will get less data

stored per disc. Second, be organized. Have a marker pen and some way to store the discs handy. Your backup will not be very useful if the discs are all scratched up or you can't figure out which discs are part of which backup or you lose some of your backup discs.

You should be aware of what kind of CD/DVD burner you have available. Older Macintoshes may have a drive that can only read and write CD's or a drive that can read DVD's but cannot write them – in this case you will only be able to use CD media.

When a backup to CD or DVD is started, Data Backup will display the following sheet
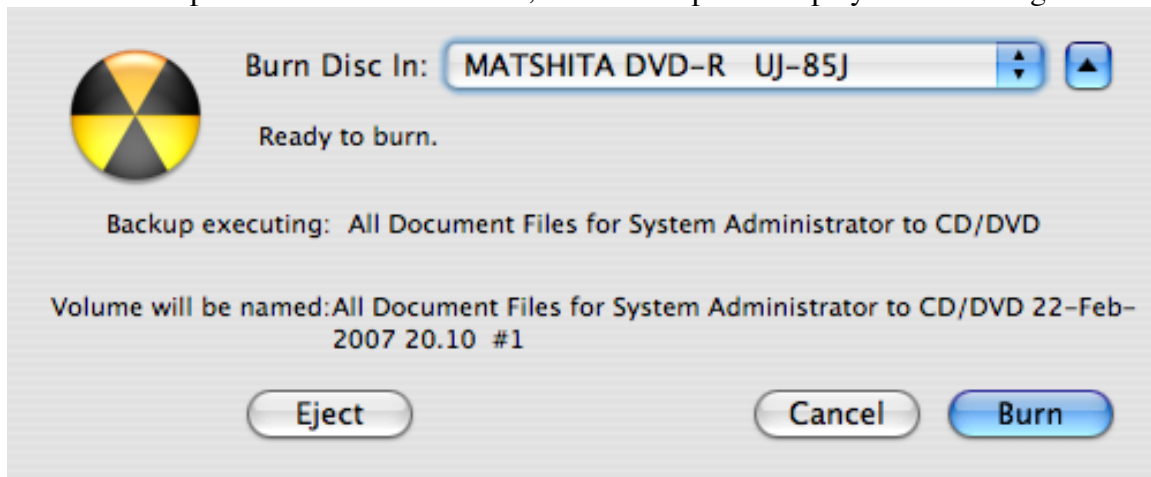
This panel is similar to the standard Mac OS X CD/DVD burn panel but there are a couple of additional pieces of information. It shows the name of the backup that is executing and also what the volume will be named.

Insert the CD or DVD disc you want to burn to and select the drive you put it into. Then, press the "Burn" button to burn that volume of the backup.

If you press the "Cancel" button, Data Backup will ask you if you want to abort the backup.

Data Backup will prompt you with this panel each time it needs another CD or DVD to backup to.

You can display more options by pressing the disclosure button in the upper right. This will cause the panel to look like this:
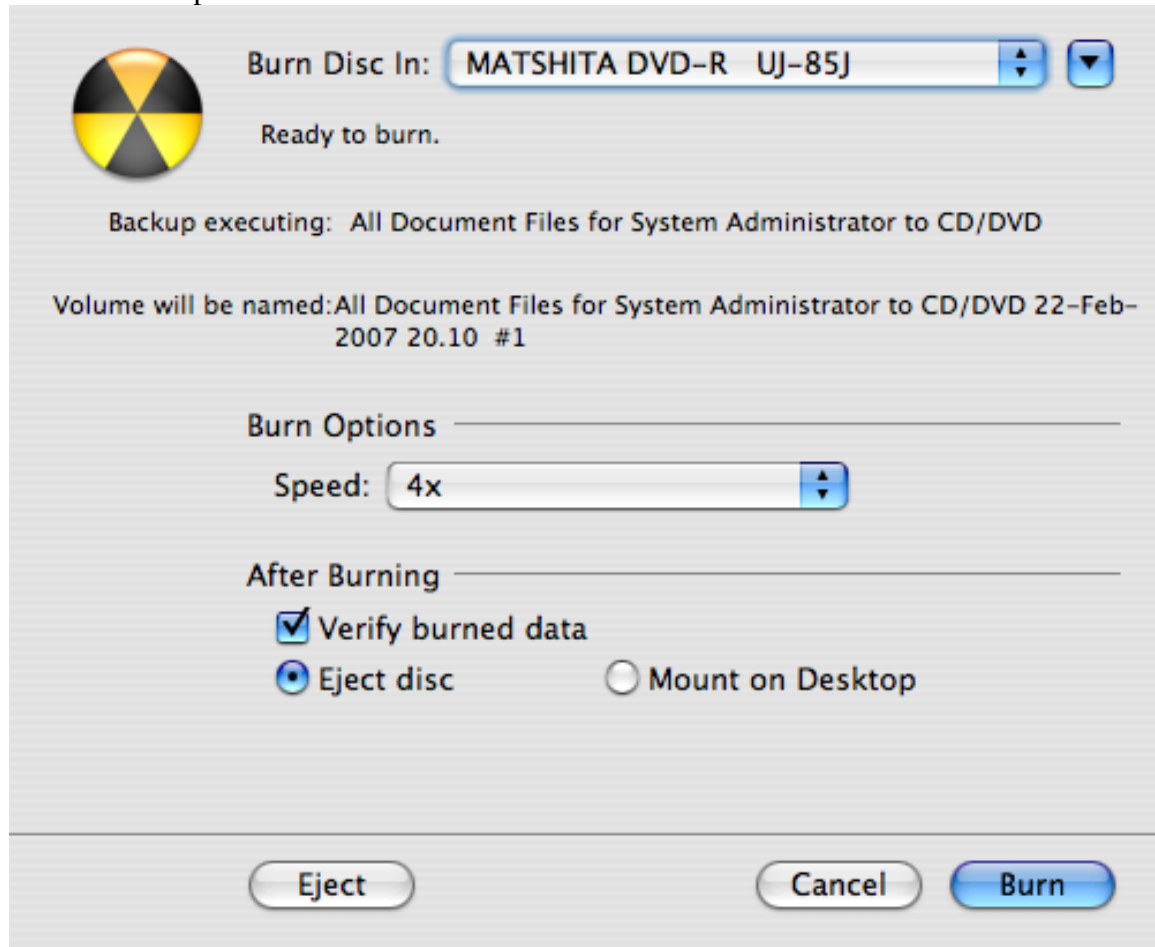
You can control the speed at which the drive is burning by selecting from the Speed list. Data Backup will automatically pick the fast speed the drive and media are capable of. If you are having difficulty getting discs to burn properly, try reducing the speed and burning again.
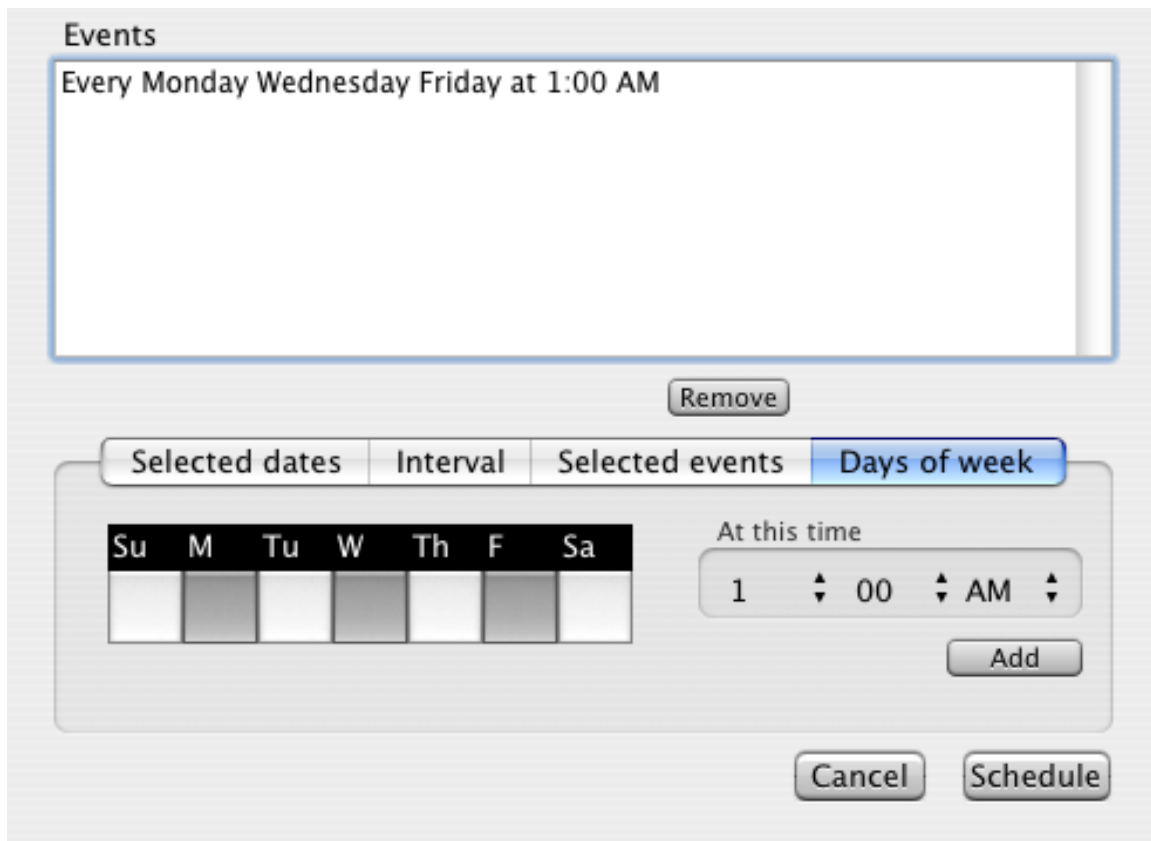
Data Backup will verify the data on the new disc after writing it if "Verify burned data" is selected. Turning this off will save some time but it is possible for discs to burn correctly but still have some data be unreadable. We recommend leaving this option on if your data is at all important.

You can select whether to eject the disk when done or leave it in the drive and mount it on the desktop.

Scheduling your backup for later
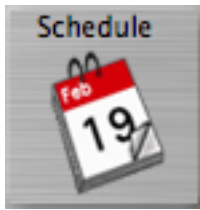
Instead of starting your backup immediately, you may choose to schedule the backup to happen at some time in the future. When you press the Schedule button, a scheduling option panel will appear. This panel displays all existing scheduled backup events, and allows you to schedule the current backup set in a variety of ways.
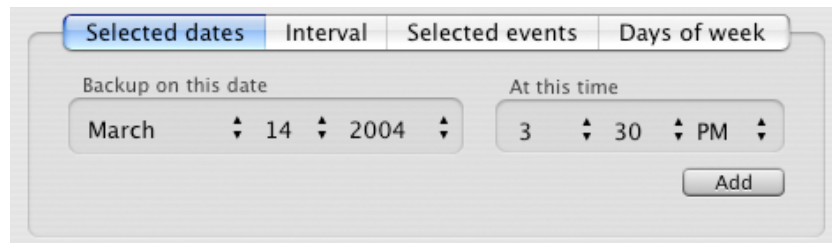
Every currently scheduled event appears in the Events list near the top of the scheduling options panel. There is an entry for every scheduled event. To review the details of any scheduled event, see "Reviewing your backup schedule" below. If there is a scheduled event that you no longer wish to happen, you may click the "Remove" button near the bottom of the Events list.

To add a new scheduled event, you simply need to click the preferred schedule type ("Selected dates", "Interval", "Selected events", and "Days of week"), then set your desired parameters for that schedule type. To add a new scheduled event, you can click the "Add" button near the parameter well. To accept all shown scheduled events in the Events list, click the "Schedule" button near the bottom of the scheduling options panel, or click the cancel button to leave the currently scheduled events unchanged.

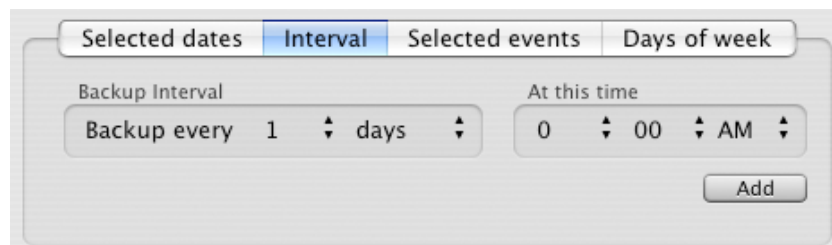The operation of the various schedule types are as follows:

Selected Dates   This schedule type allows you to specify a specific time and date at which to perform your backup. The date you specify can be any date in the future – when this date occurs, your backup will be performed even if Data Backup is not running at that time.

By clicking the up/down arrows near month, day, year, hour, minute, and am/pm, you can set each of the date time parameters. When you see your desired date and time in the parameter well, click the add button to commit your schedule date to the events list,

Interval   This schedule type allows you to specify a recurring interval at which to perform your backup. The interval can be specified in minutes, hours, days or weeks. The first backup will be performed after the interval specified. Your backup will be performed even if Data Backup is not running at that time.

By clicking the up/down arrows in the left side of parameter well, you can select a number of weeks (up to 4) or a number of days (up to 30). You can set your desired backup time in the right hand side of the parameter well. Click the add button to commit your interval schedule to the events list,

Selected events   This schedule type allows you to specify a special event at which to perform your backup. The event may be either System Startup time, or at the time the Destination Drive appears.
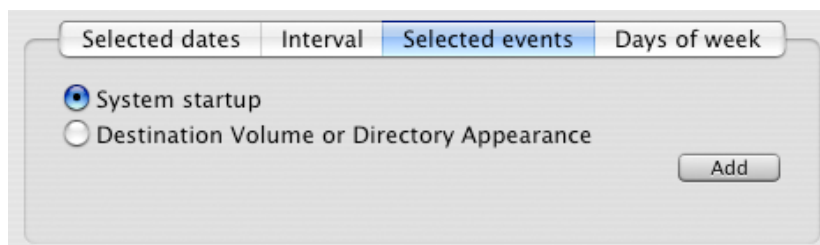
By clicking "System Startup", your backup will be scheduled to occur whenever the system starts up. Alternatively, by clicking the "Destination Volume or Directory Appearance", your backup will be scheduled to occur every time your backup destination drive/folder appears on the desktop. This is an especially useful option if you are backing up to an external FireWire drive or a network drive - every time you mount your destination drive, your backup will occur, even if Data Backup is not running.

Click the add button to commit your selected event schedule to the events list,

Days of week   This schedule type allows you to specify a recurring weekly interval at which to perform your backup. You may specify any day of week and time for your backup to be performed. The first backup will be performed the next instance of the day of week you selected. Your backup will be performed even if Data Backup is not running at that time.
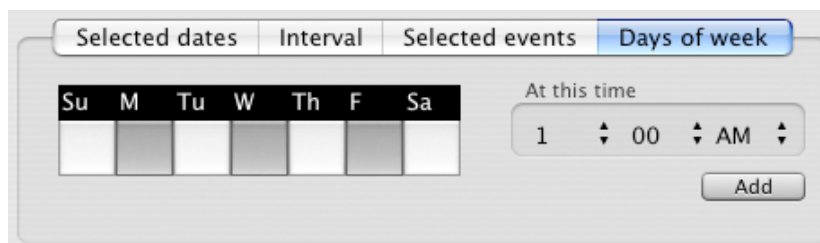
By clicking the boxes corresponding to the days of weeks in the left side of parameter well, you can select the desired days of week for your backup to be performed. You can set your desired backup

time in the right hand side of the parameter well. Click the add
button to commit your interval schedule to the events list,

Editing schedules

A small calendar icon will appear to the left of the name in the Quick Backup List for
backup sets that have been scheduled. Select the set whose schedule you want to edit and
then press the "Schedule" button. The schedule window will open as described above
showing all of the schedule events. You can add new schedule events or remove
schedule events. To stop scheduling the backup set completely, press the "Unschedule"
button.
You can also use the "Schedule View" window to show and remove all schedules,
including those for backup sets that are not in the "Quick Backup List"

Monitoring the progress of your backup operation

While a backup operation is in progress, you can monitor the backup activity by
launching Data Backup and observing the file copy activity near the bottom of the main
window.

If you wish to pause the current backup activity, you may do so by clicking the Pause
button (the pause button will then become a "run" button). To restart the backup activity,
click the run button.

If you wish to stop a backup activity, you may do so by clicking the Stop button near the
bottom of the window.

Managing Data Backup

Creating, deleting, renaming and duplicating backup sets

To create a new, empty backup set use the File->New Backup Set option, or press
Command-N.
To delete a set, select it from the Quick Backup list and use the File->Delete Backup Set
option or press the delete key (you will be prompted to confirm the deletion before the set
is deleted)
To rename a set use the File->Rename Backup Set option or press Command-R.
To duplicate a set, use the File->Duplicate Backup Set option or press Command-D

Editing backup sets

You can edit any backup set by selecting it in the Quick Backup list and then making any
desired changes. When you are finished making your changes you can either save them

using the File->Save Backup Set option (Command-S) or create a new backup set using the File->Save Backup Set As… option.

Adding Predefined Sets

When Data Backup is first configured it automatically creates a set of predefined backup sets for you. If you need to recreate those original predefined sets you can use the File->Add Predefined Set option to

To add a predefined set, select the predefined set you would like to add and click the "Add" button. If a set with the same name already exists the set you are adding will be named <name> #1.

If you do not have a default destination set you will only be able to add the sets that use the CD or DVD drive as a destination. To set a default destination, use the File->Set Default Destination Option.

Managing the Quick Backup List

Most users do not need to change their Quick Backup List. However, if you want to change the order of the backups listed in the Quick Backup List or hide some of them Data Backup lets you do so.

To manage the Quick Backup List, select the File->Manage Quick Backup List option. The Manage Quick Backup List window will appear.
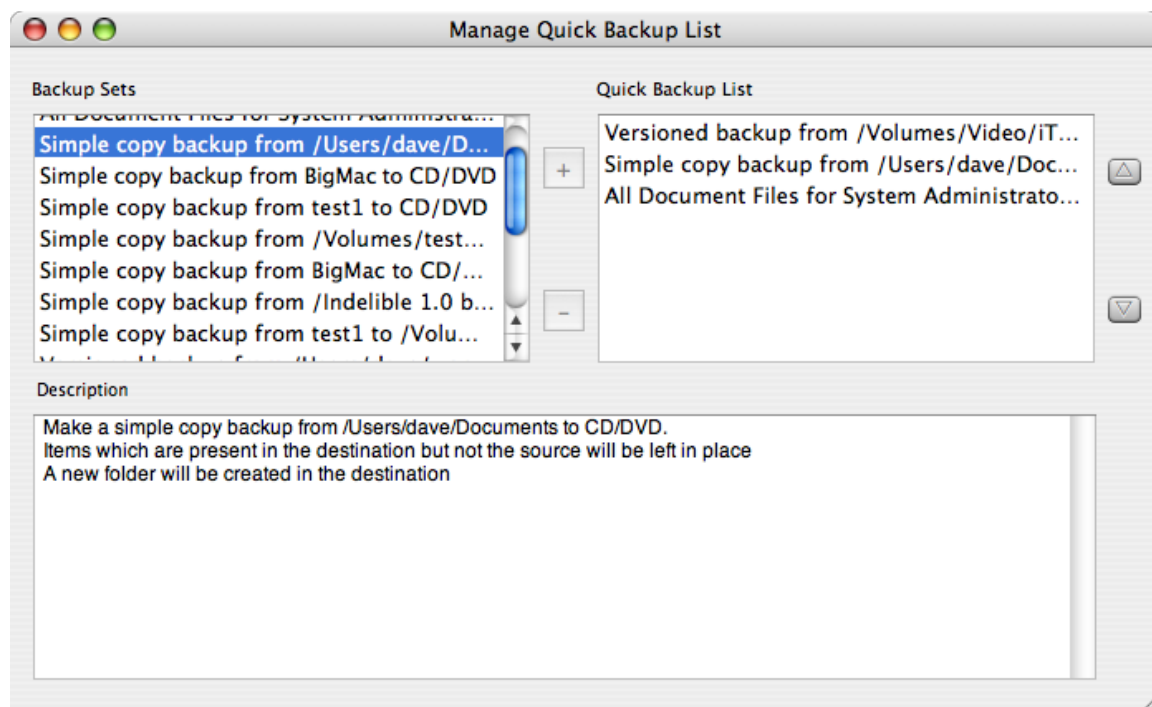

When the Manage Quick Backup List window is on top, the File->Duplicate Backup Set, File->Delete Backup Set, and File->Rename Backup Set will work on the set or sets that you have selected in the Manage Quick Backup List window (you can select the sets in either the Backup Sets list or the Quick Backup List list).

To add one or more backup set to the Quick Backup List, select the sets you wish to add in the Backup Sets list and press the "+" button. To remove a backup set from the Quick Backup List, select the set you wish to remove in the Quick Backup List and press the "-" button.

To change the order of the sets in the Quick Backup List, select a backup set in the Quick Backup List and press the up or down buttons on the right hand side of the window to move it to the position you want.

To edit a set, double click on it in either list. It will be displayed in the main window where you can make changes. If it is not in the Quick Backup List it will be added.
If your system has multiple users, each user gets their own Quick Backup List. In order to change the sets in a user's Quick Backup List you must be logged in as them when running Data Backup.

Reviewing your backup schedule
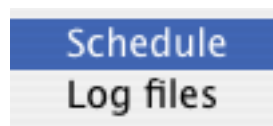
By selecting "Schedule" from the view menu, you can open the schedule review window. Form this window, you can view the description of every scheduled backup operation and you can delete unwanted scheduled actions.
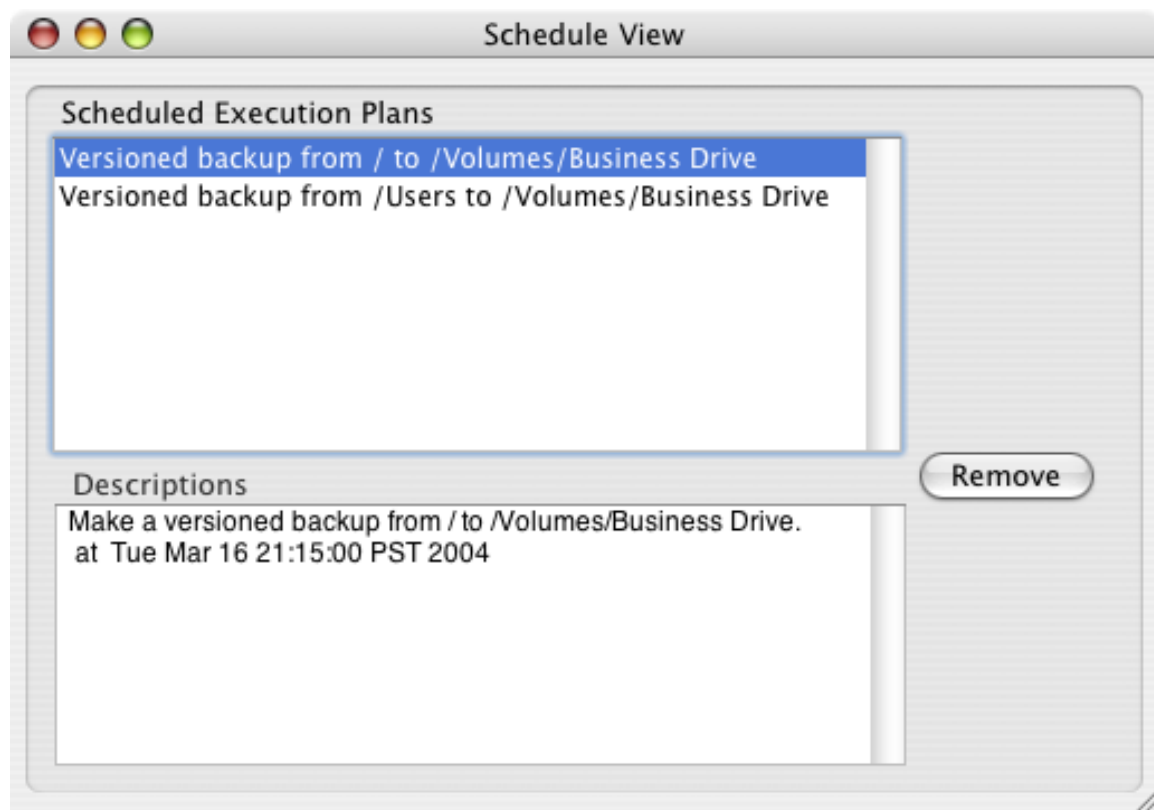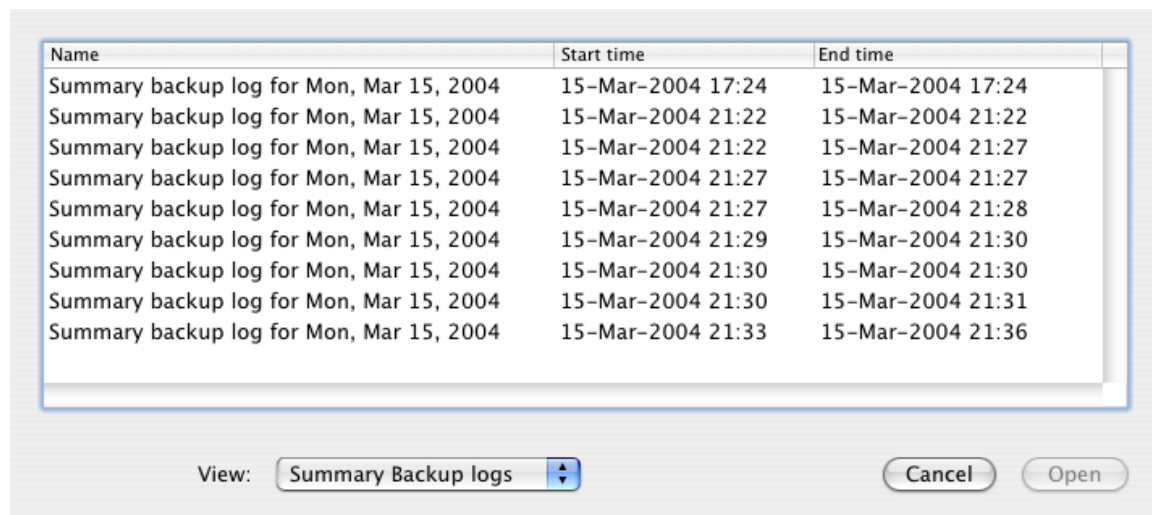
The top half of the window contains a list of all the currently scheduled backup actions, or execution plans. You can select one of the execution plans by clicking on it. When selected, its description appears in the bottom half of the window. If a backup execution plan is no longer needed, you may delete it by selecting it and then clicking on the Remove button.

Viewing Data Backup Log files

During the backup process, Data Backup creates log files that report, in detail, all the files that have been copied, and any errors encountered during the backup process. To view these logs, select "Log files" form the view menu – this will open the log review window.

Name	Start time	End time
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 17:24	15-Mar-2004 17:24
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 21:22	15-Mar-2004 21:22
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 21:22	15-Mar-2004 21:27
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 21:27	15-Mar-2004 21:27
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 21:27	15-Mar-2004 21:28
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 21:29	15-Mar-2004 21:30
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 21:30	15-Mar-2004 21:30
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 21:30	15-Mar-2004 21:31
Summary backup log for Mon, Mar 15, 2004	15-Mar-2004 21:33	15-Mar-2004 21:36

View: Summary Backup logs   Cancel   Open

From the log review window, you can choose to view several different types of logs by selecting the type of log desired from within the "view" popup menu. You can select a specific log indicated in the central list within the window by clicking on the log entry. To open a selected log and view its contents, click the "Open" button near the bottom of the window.

The types of logs you can choose from include:

Summary Backup logs   This log file reports all the backup tasks in general, including how many files were copied during the backup

process. If an error occurred while backing up a file, the error will be reported here.

Verbose Backup logs   This log file is similar to the Summary log above, but it includes much more information, such as the path to every file copied during the backup process. These logs are created only if the "Create verbose logs" preference in turned on (see the Preferences section). All file copies are reported in this log regardless if there was an error or not. Note that this log file can become very large if a large number of files are being backed up.

Executor logs   This is a very technical log that indicates the internal functioning of Data Backup during all backup processes. These logs contain information primarily of use to **Prosoft** Engineering, Inc.'s technical support department in the event that you call in reporting a problem while using Data Backup.

Managing Versioned backups

When Data Backup performs a backup set that utilizes the Versioned backup type, the destination drive/folder will contain hidden areas in which old versions of files are stored. The only way to remove these old versions of files is to manage the versions from within Data Backup. These can be removed automatically (see Preferences – Backup) or you can remove them manually.
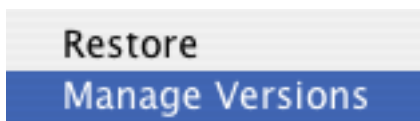
To manage your backed up data's versions, select the Manage Versions item from the File menu. After doing so, you will be presented with the Version Management window as shown below.
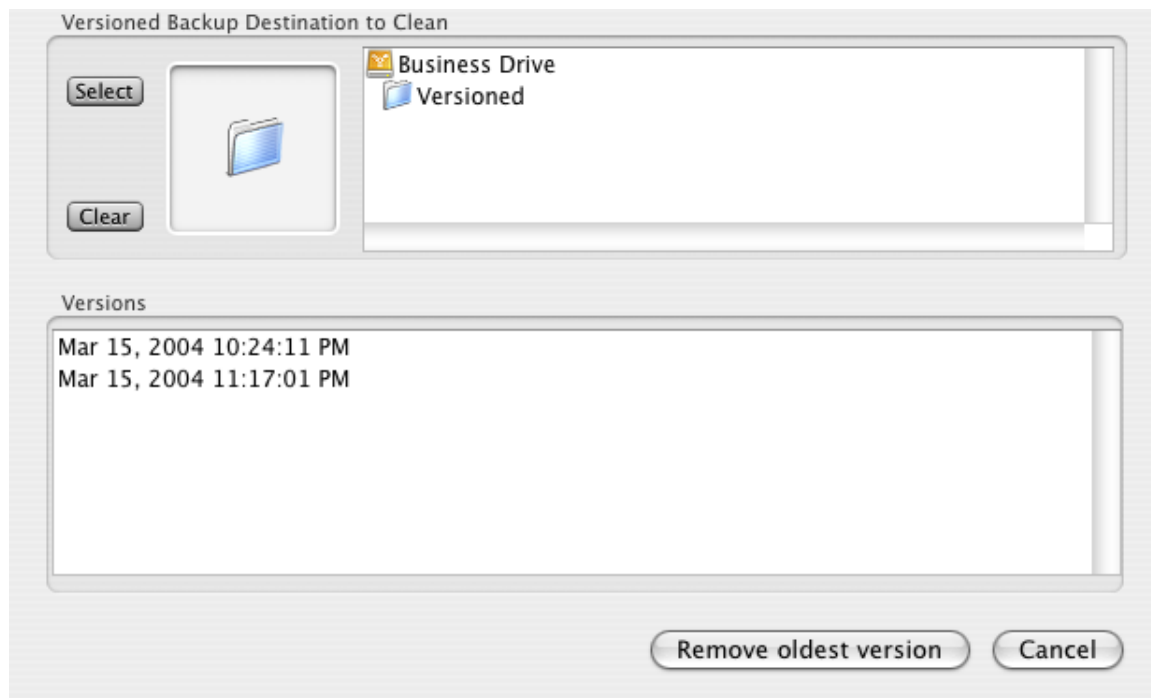
To manage old versions, you must select an existing destination drive/folder by dragging it into the destination well. You may also utilize the select and clear buttons to select the destination drive/folder. Be sure to select a backup destination that is of type "Versioned", no other type of backup can be managed in this way.

Once you have selected a backup data set, you will see a list of backup dates. You may remove the oldest file versions by clicking the "Remove oldest version" button near the bottom of the window. Once this is done, the oldest copies of the files backed up will be eliminated thereby freeing up space on the backup destination drive.

Preferences

General
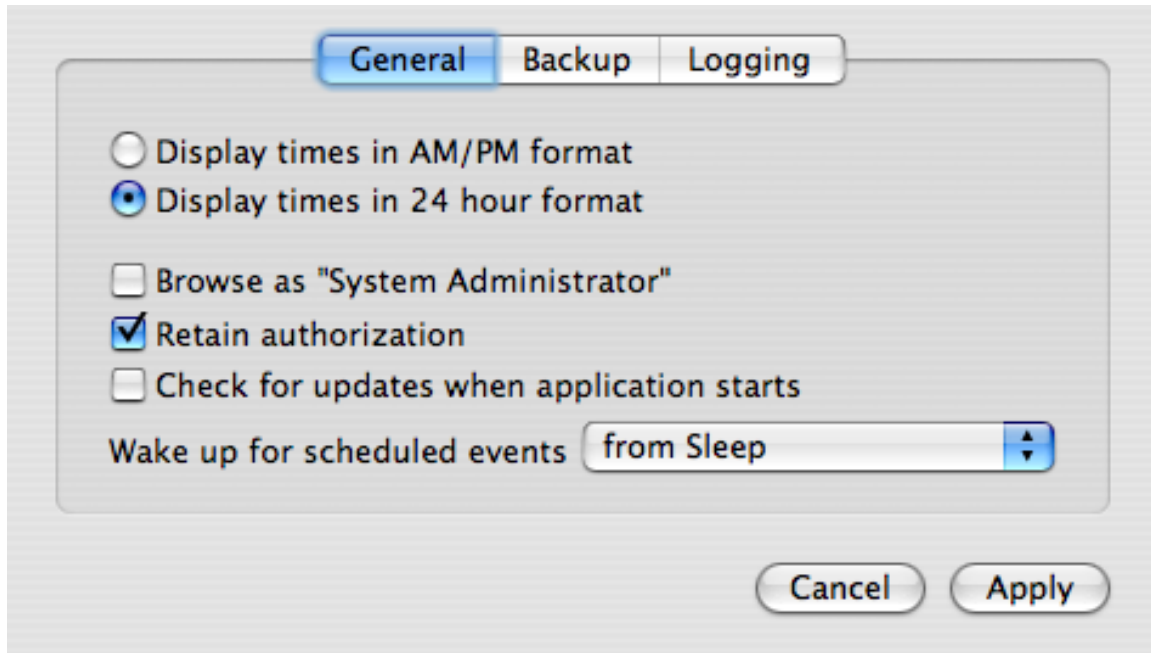
Display times in AM/PM or 24 hour format
This controls the display of times in the Data Backup application. Select "Display times in AM/PM format" to have times displayed with AM/PM times. Select "Display times in 24 hour format" to have times displayed in military style, 24 hour format (e.g. 8:00 PM is displayed as 20:00)

Browse as "System Administrator"
Normally Data Backup browses files as the current user. This works well for most uses. If, however, you are trying to select another user's files to backup you may need to browse as system administrator.

Retain authorization
After you have authenticated for the first time, Data Backup retains that authorization so that you do not need to enter your password every time you run the Data Backup application. If you are working in an insecure environment and want Data Backup to require authorization every time, turn this option off.

Check for updates when application starts
If this option is selected, Data Backup will automatically check with the Prosoft web site for updates to the software whenever the application is started.

Wake up for scheduled events
Data Backup can wake up the machine from sleep or power off to run backups that you have scheduled. This option controls whether Data Backup will wake up the machine when it is turned on or sleeping, only when it is sleeping, or never.

Backup
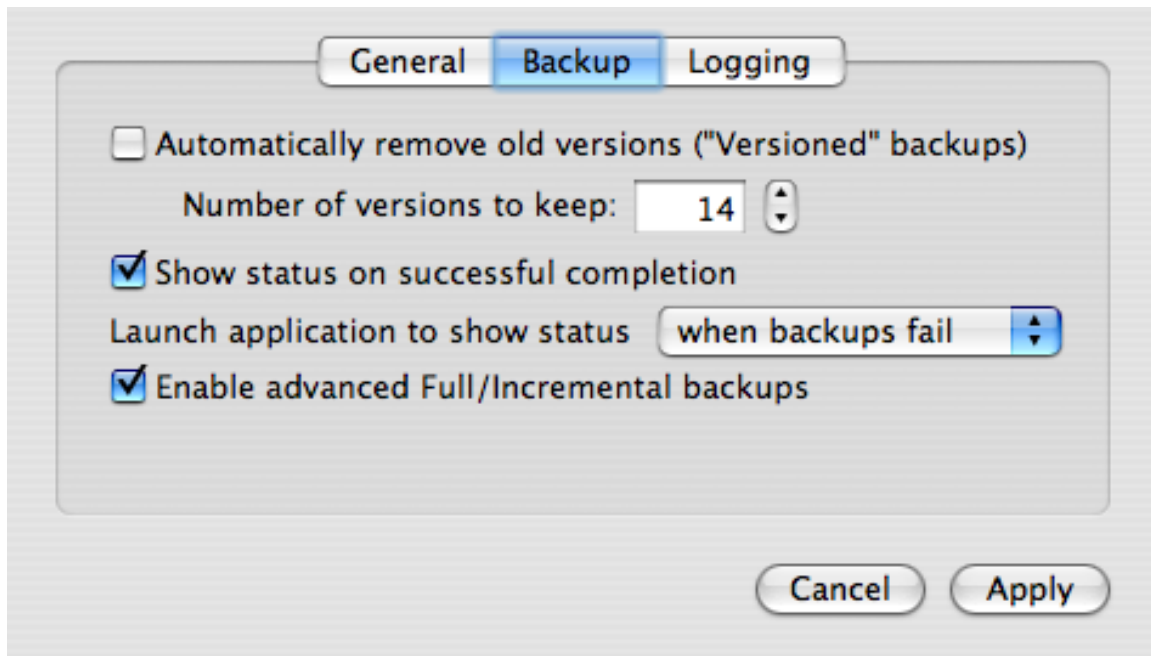
Automatically remove old versions ("Versioned" backups)
When you use Data Backup's "Versioned" backup feature, old versions of files are kept in your backup directory. These can be removed by using the "Manage Versions" item from the "File" menu or you can set them to be removed automatically. If the "Automatically remove old versions" option is selected Data Backup will only keep as many versions as you specify (any number greater than 2 can be specified). When a Versioned Backup is run, Data Backup will first remove as many old versions as necessary to have the specified number of versions.

Show status on successful completion
When a backup completes Data Backup displays a status message on a sheet. If this option is not selected Data Backup will only display that message if an error occurs. This is useful for users who have backups scheduled to run frequently.

Launch application to show status
Data Backup executes backups in the background. This option controls when Data Backup will launch the application to display status. It can be set to "never", "when backups fail" and "always".

Enable advanced Full/Incremental backups
The Full/Incremental backup types while useful to IT professionals are often confusing for regular users. Select this option to make them available to use.

Logging
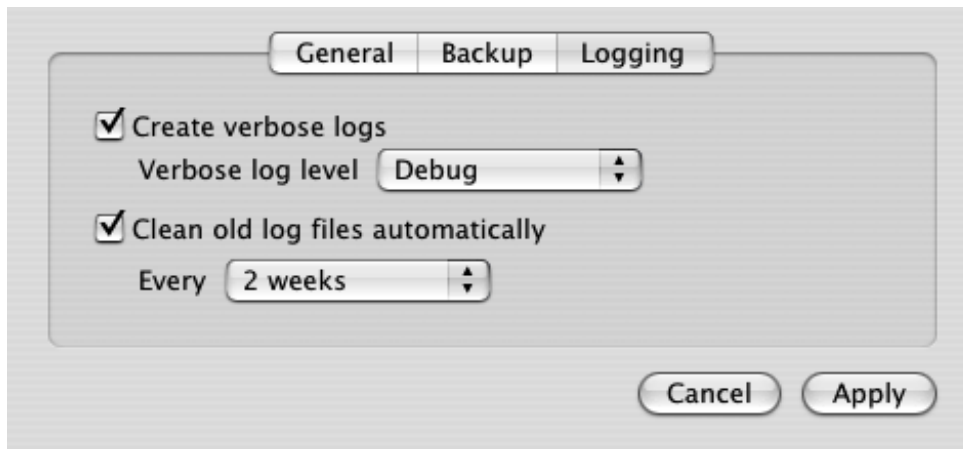
Create verbose logs
When Data Backup performs a backup it creates log files recording what it did and what errors, if any, occurred. By default, a summary log file only is created. If you would like a more verbose log file, detailing exactly which files were backed up or skipped, turn this option on. You can select "Verbose" as the log level, or "Debug" which will produce even more information about the internal workings of Data Backup.
Note: Verbose log files can be quite large (100's of megabytes).
Clean old log files automatically
This controls the removal of old log files automatically. If this option is turned off, log files should be removed manually, especially if "verbose" logs are being kept as they may fill your system disk. Data Backup removes old log files at system startup and every night at midnight.

Restoring data from your backup
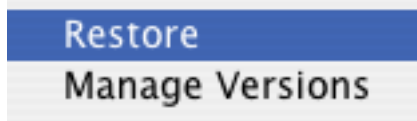
In order to restore information from a previous backup operation, select the Restore option from Data Backup's File menu.

Selecting this menu option opens the Restore window. Here you will select the backup to restore from, what files to restore and where to restore them.

The first screen asks you to select the backup destination to restore from.
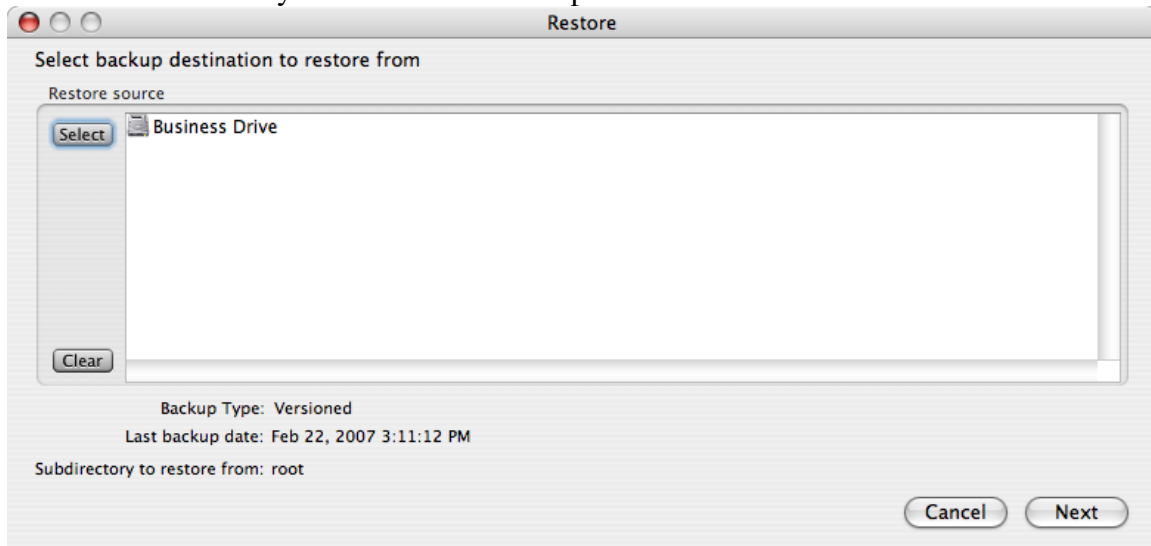
Select the volume or folder you backed up to. If you backed up to CD's or DVD's, insert the last disc from your backup set and then select that volume.

If more than one source was backed up to the destination Data Backup will ask you to select which backed up source to restore form.

Data Backup will check the volume/folder and display backup type, the last backup date to this volume/folder and the subdirectory it will restore from.

Click "Next" when you're ready to proceed to the next restore screen.
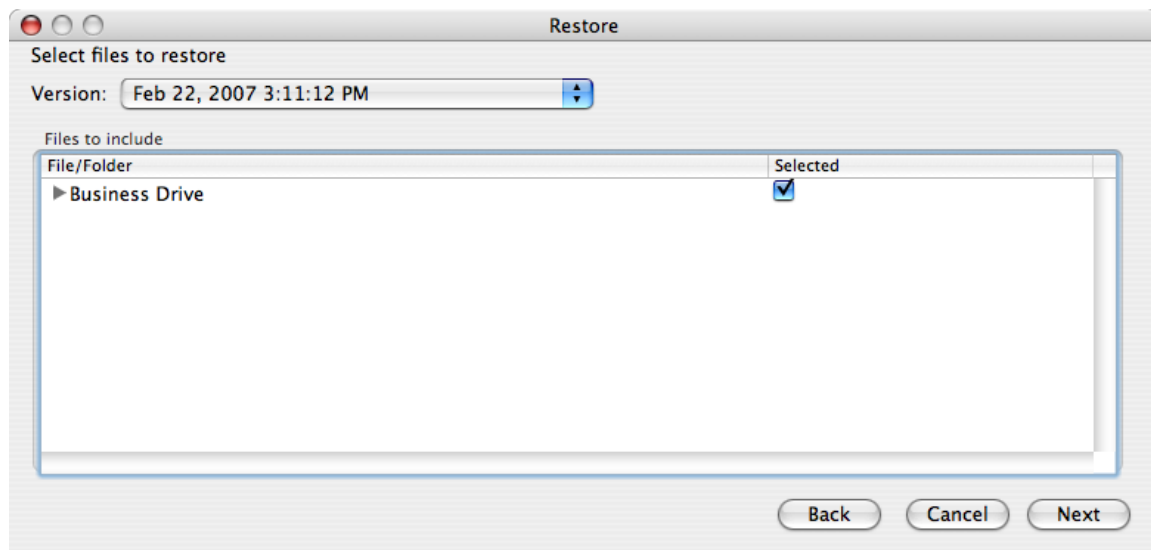
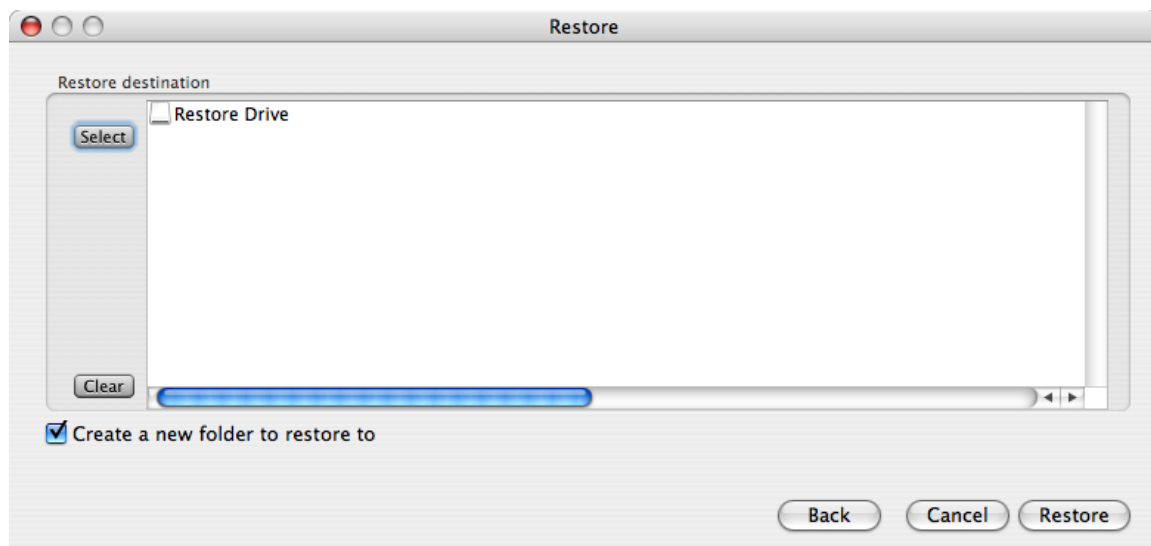This screen allows you to select the files to be restored. If the backup destination you selected was a Versioned backup (or a Full/Incremental backup) the "Version" list will show the dates of the backups that this destination contains. Select the date you wish to restore from.

The "Files to Include" browser will show you the files that are available in that backup. Initially all files are selected for restoration. If you want to pick specific files, first deselect all files by clicking on the button in the "Selected" column for the top level. Then, browse to the files you want to restore and select them.

After you have select the files you want to restore click the "Next" button to process to the next restore screen.

This is the final screen before the restore is run. This screen allows you to pick the folder or volume to restore your backed up files to. Select the folder or volume you wish to restore to in the "Restore destination" browser.

There is one option to be set here. When "Create a new folder to restore to" is selected a new folder with the name of the source you are restore will be created and all files will be

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restored inside of that folder. This is the safest way to restore files and will not overwrite or delete any files that already exist in your destination volume or folder. Sometimes you may wish to restore a volume or directory to the state it was in when you created the backup. In those cases, uncheck the "Create a new folder to restore to" option. If you are trying to make a bootable volume by restoring from your backup you may also want to turn this option off.

After you have selected the restore destination and device on the restore options you are ready to begin the restoration process – simply click the Restore button and the files will begin to be copied to the Restore destination.

 If there are files in the Restore destination that match the names of files in the Restore source, the existing files in the destination will be overwritten.

IV. Special Concerns

Tips

Backing up to removable media	You may backup to any removable medium (such as a zip drive). For best results, divide your backup into manageable portions that fit into a single medium and select the incremental backup option. After your initial backup (which may consume several mediums), your future backups will only include those files that have changed since your last backup (generally, this will fit into a single medium).
File Size limitations	Many backup utilities have limitations in how many files and/or the largest file that may be backed up. There is no such limitation in Data Backup.
Volume formats Supported	Data Backup supports most volume mountable volume formats (i.e. if you can see the drive on your desktop, Data Backup can access it).
Moving files during a backup process	If you move files while they are currently being backed up, you may experience unpredictable results. If you move the file into a directory that has not yet been backed up, the file will appear in its new location, however, if you move the file into a directory that has already been backed up, the file will be missed and not backed up. If you move a file that is actively

being backed up, some data from the file may not appear in the backed up data (specifically the resource fork if the destination volume is HFS).

Removing a target backup volume during a backup operation

You should not attempt to remove drives that are currently being accessed (it is possible to lose data by doing this). If you try to remove a volume that Data Backup is currently using, you will be warned that the volume is in use – if you ignore the warning and remove the volume anyway, the backup will fail. The failure will be noted in the backup log.

If you have trouble

If you have trouble using Data Backup or have questions about using this software, please contact Prosoft Engineering Technical Support. Full contact information for the support team is available at: http://www.prosoftengineering.com/support

FAQ

Q: What are the numbers at the end of the folders created by Data Backup during a Full or Incremental backup?

A: They represent the date that the backup occurred. It has the following format:

> YYYYMMDDhhmmss, where
> YYYY = Year (i.e. 2004)
> MM = Month (i.e. 03)
> DD = Day (i.e. 13)
> hh – hours (i.e. 22)
> mm = minutes (i.e. 23)
> ss = seconds (i.e. 17)
>
> For example 20040313222317 represents the date March, 13th, 2004 at 10:23:17 pm
>
> The time and date used is Greenwich Mean Time, not the time in your local time zone.

Q: Will my files that are in use be backed up?

A: The data present in the file (on the drive) at the time of the backup will be copied to the destination drive/folder.

Q: What if the backup won't fit onto my external drive?

A: Data Backup only splits files across CD's or DVD's. You have the ability to select either drives or folders to be backed up, select folders that will fit on your destination volume for best results.

Q: Can I back up to a network volume?

A: Yes, all mountable network volume types are supported, however, if you are backing up to a file server that does not support permissions (such as AFP volumes), all resultant files in your backup will be "owned" by the user who mounted the volume at the time of the backup.